

Patent claims

1. A sensor component comprising the following features:

- 5 - a sensor chip (2) with a sensor region (3), electrodes of the sensor region (3), conductor tracks and contact areas (4) on an active top side (5) of the sensor chip (2), the conductor tracks connecting the contact areas (4) to the electrodes,
- 10 - a plastic plate (6), in which the sensor chip (2) is embedded by its rear side (7) and its edge sides (8-11), the active top side (5) of the sensor chip (2) together with a top side (5) of the plastic plate (6) having an overall top side (13),
- 15 - a rewiring structure with a rewiring layer having rewiring lines from the contact areas to the external contact areas of the sensor components, the rewiring structure being arranged on the overall top side.
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2. The sensor component according to claim 1, characterized in that

- 25 the overall top side (13) comprises electrode areas (18) of passive components (19) embedded in the plastic plate (6), rewiring lines (16) extending from the electrode areas to contact areas (4) and/or to external contact areas (17).

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3. The sensor component according to claim 2, characterized in that

- the overall top side (13) comprises contact areas (29) of a semiconductor chip (21) with integrated circuit, rewiring lines (16) extending from the contact areas (19) of the semiconductor chip (21) to contact areas (4) of the sensor chip (2) and/or to electrode areas (18) and/or to external contact areas (17).
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4. The sensor component according to one of the preceding claims, characterized in that
- 5 the sensor chip (2) and a semiconductor chip (21) with integrated circuit are embedded in a manner stacked one above the other in the plastic plate (6), the sensor region (3) forming a part of the overall top side (13).
- 10 5. The sensor component according to one of the preceding claims, characterized in that the sensor region (3) is radiation-sensitive and comprises a lens (22).
- 15 6. The sensor component according to one of the preceding claims, characterized in that the plastic plate (6) comprises through contacts (23),
- 20 the through contacts (23) being connected to external contact areas (17) on a plastic plate rear side (24) and being electrically connected to the rewiring lines (16) on the overall top side (13).
- 25 7. An optoelectronic device, which comprises a sensor component (1) according to one of the preceding claims in a camera housing (26).
- 30 8. An optoelectronic coupling component, which comprises a sensor component (1) according to one of claims 1 to 6, with an optical fiber plug-in region (27).
- 35 9. A panel, which comprises component positions (33) - arranged in rows and columns - with sensor components according to one of claims 1 to 6.
10. A method for the production of a panel (28), which

comprises the following method steps of:

- a semiconductor wafer having sensor chip positions arranged in rows and columns,
- separating the semiconductor wafer into individual sensor chips (2) with a sensor region (3) and contact areas (4) on an active top side (5) of the sensor chip,
- inserting an adhesive film or an adhesive plate into a first mold half with component positions (33) arranged in rows and columns,
- applying the sensor chips (2) in the component positions with adhesive bonding of the active top sides of the sensor chips on to the adhesive side of the adhesive film or of the adhesive plate,
- bringing together mold halves and injecting a plastics composition (31) into the mold with the sensor chips (2) being embedded on one side,
- curing the plastics composition (31) to form a composite plate (32) comprising plastics composition (31) with sensor chips (2),
- removing the adhesive film or the adhesive plate and applying a rewiring structure (14) to the freed overall top side (13) of the composite plate (32).

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11. The method according to claim 10, characterized in that

- in component positions (33) passive components (19) are additionally positioned with their electrode areas (18) on the adhesive film or on the adhesive plate.

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12. The method according to claim 10 or claim 11, characterized in that

- in the component positions (33) semiconductor chips (21) with integrated circuits are additionally positioned with their contact areas (29) on the adhesive film or on the adhesive plate.

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13. A method for the production of a sensor component, which comprises the following method steps of

- providing a panel (28) having component positions (33) arranged in rows and columns, according to one of claims 10 to 12,
- applying external contacts (25) to external contact areas (17),
- separating the panel (20) into individual sensor components (1, 10, 20, 40, 60).